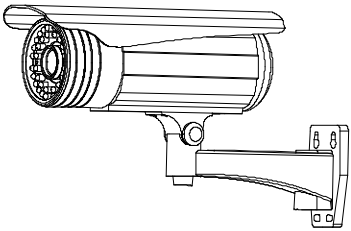
Network Camera



User's Manual

V1.3

--Content--

CHAPTER 1 PROFILE..... - 2 -

1.1 FUNCTIONS AND CHARACTERISTICS..... - 2 -
1.2 APPLICATIONS..... - 3 -

CHAPTER 2 INSTALLATION..... - 3 -

2.1 CAUTIONS..... - 3 -
2.2 PANEL ILLUMINATE..... - 4 -
2.2.1 REAR ELEVATION..... - 4 -
2.2.2 REAR ELEVATION..... - 5 -
2.3 HARDWARE INSTALLATION..... - 6 -
2.3.1 ALARM OUTPUT CONNECTION..... - 6 -
2.3.2 SELECTION OF RETICLE..... - 7 -

CHAPTER 3 PARAMETER SETUP..... - 8 -

3.1 SETUP PARAMETER BY IE BROWSER..... - 8 -

APPENDIX..... - 9 -

This manual is suitable for IPR54XX series

Chapter 1 Profile

Network Camera is a kind of embedded digital surveillance product collected traditional simulation camera and network video server. Adopts embedded Linux operation system and SOC hardware platform of Graim Corp. And has characteristics of high efficiency on system adjustment, solidified code on Flash, small bulk, high stability and reliability.

1.1 Functions and Characteristics

Basic Function

- Video compression tech: adopts H 264 video compression tech, high compression ratio with super agility handling.
- Network function: integrate TCP/IP protocols and video, alarm, voice data supported, built-in WEB browser, IE interview supported.
- Heartbeat function: host computer is able to know running state of network camera real time by heartbeat function.
- PTZ control function: control for PTZ, kinds of decoder protocols and dome cameras supported.
- Alarm function: 1 channel alarm input (signal parameter), 1 channel alarm output (on-off parameter), motion detective, video lost, mask alarm, alarm link output.
- Voice speech: two-way voice speech, one-way voice broadcast.
- POE power supply supported.
- User management: multi-level user popedom management.

Compression Handling Function

- 1 channel video signal supported, separate hardware compression, adopts H.264 compression standard on video compression, not only support change code ratio, but also support change frame ratio, while setting up video image quality, it's able to restrict compression bit rate of video image.
- D1(PAL:704*576, NTSC:704*480), CIF(PAL:352*288, NTSC:352*240), QCIF(PAL:176*144, NTSC:240*160) supported
- Up to PAL:1280*720p@25fps; NTSC:1280*960p@22fps

- OSD supported, date and time setup available.

Remote interview and transmission function

- One self-compliant 10M/100M Ethernet interface as standard accessory..
- PPPoE, DHCP, DDNS protocol supported.
- Available to set parameter, browse real time video, check network camera state through applications or IE browser. Available to realize alarm link and save compressed bit rate through network.
- Available to realize remote upgrade and maintenance through network.
- RS-485 can support one-way network readezvous point aisle connection, client side can control serial devices through network readezvous point aisle of network camera.

1.2 Applications

Suitable for circumstances required for network remote surveillance

- ATM, Bank Counter, Supermarket, Factory etc
- Nursing House, Kindergarten, School etc.
- Intelligentized door management system
- Intelligentized Building, intelligentized community management system
- Electricity station, telecom base station etc unmanned on duty system
- Outdoor bridge, tunnel, crossing traffic etc surveillance system
- flowing line and warehouse surveillance
- 24h surveillance to road traffic
- Remote surveillance to forest, fountain and river etc.

Chapter 2 Installation

2.1 cautions

- Please check carefully while unpacking, be sure articles inside accordance to the list
- Please read this chapter carefully before installation

- Be sure to off all concerned power while installation
- Check power and voltage in case to damage facility because of unmatched voltage
- Installation circumstance: do not install in circumstances of high humidity or high temperature, please keep good ventilation, pay attention to defend rain, avoid installing in acute vibrate circumstance.
- In times of malfunction, do not attempt to dismantle and service the camera yourself. Please refer to qualified serving personnel to repair or contact our technical department to solve the problems.

Remark: power supply, lens and SD card optional while ex-factory.

2.2 Panel Illuminate

2.2.1 Rear Elevation

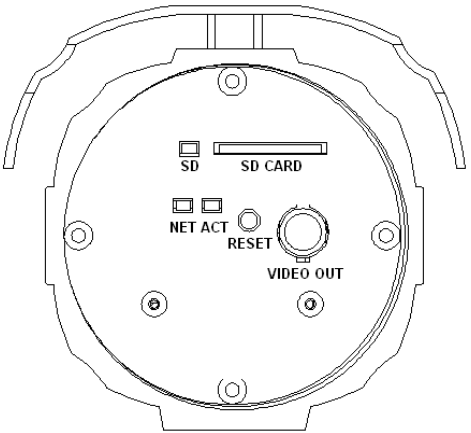


Fig. 2.1 Rear Elevation

Interface	Connection
SD card socket	Insert SD card for local storage
video output	Connect to video cable of monitor, standard BNC interface
RESET	RESET button, restore ex-factory value

2.2.2 Rear Elevation

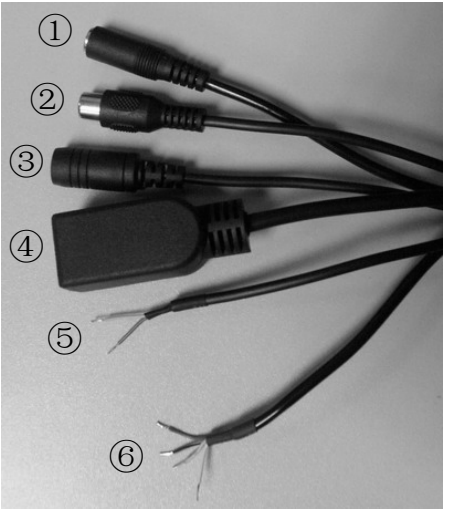


Fig. 2.2 Connection Cable

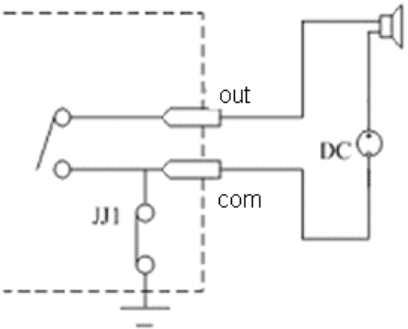
ID	Cable	Function	Connection
1	N/A	**Audio input**	Connect to audio input device, such as tone arm(impedance: 1kΩ)
2	N/A	**Audio Output**	Connect to acoustics device, such as speaker etc for audio speech output(impedance: >16Ω)

3	N/A	**DC12V（1A）**	Detailed type see parameter form in “Appendix”, please use matched manostat power
4	N/A	Network interface	Connect to Ethernet device, such as Ethernet exchanger, HUB etc. See 2.3.3 for network connection
5	navy blue	RS485TX**+**	Connect to RS-485 device, such as Pan/Tile, PTZ etc.
	white/black	RS485TX**-**	
6	brown	Alarm Out A	Connect to alarm output, 1 channel on-off parameter(the connected power must be within range of DC12V and 300mA), detailed connection method see 2.3.2
	white	Alasrm Out B	
	gray	Alarm in （DC12V）	Connect to alarm input, 1 channel signal alarm （0~DC12V）
	cambridge blue	Alarm in GND	

2.3 Hardware installation

2.3.1 Alarm output connection

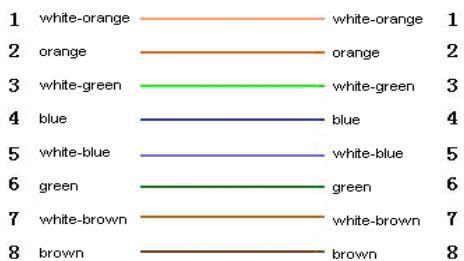
Alarm output connection demonstration



Alarm output is in fact on-off (No voltage), outside power is needed while connection alarm. Outside power must be within DC12V and 300mA while connection DC power.

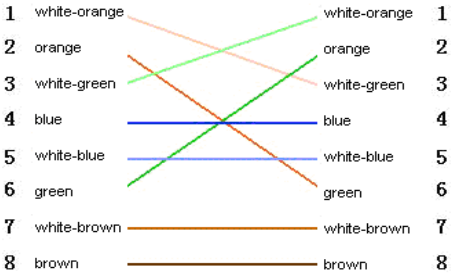
2.3.2 Selection of reticle

（1）Twisted-pair to connection interface of network camera with HUB(straight connection cable)


1 white-orange white-orange 1
2 orange orange 2
3 white-green white-green 3
4 blue blue 4
5 white-blue white-blue 5
6 green green 6
7 white-brown white-brown 7
8 brown brown 8

（2）Twisted-pair to connection interface of network camera

with PC(cross connection cable)



Chapter 3 Parameter setup

Some network parameters must be setup firstly after finishing installation, includes IP address, submask, port etc, can be setup through many kinds of ways, see below two kinds for examples:

1. Setup parameters such as IP address and PPPoE etc through IE browser

2. Setup parameters through applications on client's side.

Please be confirm PC and network camera already be connected, and the network camera can be PING!

3.1 Setup parameter by IE browser

The default IP:192.168.0.120, default port:30001, superuser: admin, superuser password: admin

Login network camera by IE, input IP address, and will shoot out logging in window, input username and password, click "login" to enter IE client interface.

Function detailed guide please refer to **"NVMS Manual**".

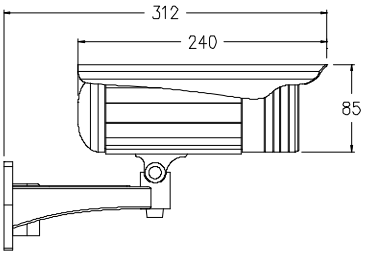
Important Note: to check device by IE, the premise is to set browser security level, open IE browser, enter "tool/Internet option/security/user-defined level", set security level "security level-low", or directly set "ActiveX, Widget and Insert "to open.

Appendix

Parameter	Description	Model
Image Sensor	1/3” DPS(Digital Pixel System)	DPS
	1/4” CMOS Sensor	CMOS
	1/3” Sony Super HAD II CCD	CCD
	1/3” Ex-view 1.3Mega Pixel CCD	1.3MP CCD
	1/3” MT9M033 COMS	1.3MP CMOS
	1/1.8 " SONY Progressive Scan CCD	2MP CCD
	1/2.5” MT9P031 CMOS	2MP CMOS
Resolution	540TVL	DPS CCD
	450TVL	CMOS
S/N Ratio	≥48dB	DPS CCD 1.3/2MP
	≥45dB	CMOS
Minimum illumination	0.5Lux/F1.2	DPS
	0.3Lux/F1.2	CMOS

	0.008Lux/F1.2	CCD
	0.5Lux/F1.2 0.02Lux/F1.2	1.3/2 MP CCD
	0.5Lux/F1.2 0.1Lux/F1.2	1.3/2 MP CMOS
Video out	1 BNC（PAL/NTSC, 1.0Vp-p，75Ω）	
Video Compression	H.264(ISO/IEC 14496-10) baseline profile to level 3.1	
Image Frame Rate	PAL:D1(704x576)@25fps, CIF(352x288)@25fps, QCIF(176x144)@25fps; NTSC: D1(704x480)@30fps, CIF(352x240)@30fps, QCIF(240x160)@30fps.	DPS CCD CMOS
	PAL:1280x720p@25fps NTSC:1280x960p@22.5fps.	1.3MP
	1600x1200p@15fps	2MP
Bit stream Control	CBR、VBR	
Audio Input/Output	1 internal Microphone In, 1 External Microphone In, 1 Audio Line Out	
Audio Compression	G711/8KHz，16bits	
	G723.1/6.3kbps (Options) AMR (Options)	

Audio bit stream	6.3Kbps
OSD	Time/date/channel NO./ channel name/user-defined
Audio and video sync	Support
Motion detection	Support
Heartbeat	Support
Two-way voice talkback	Support
Alarm and event handling	Through built-in dynamic detection or external input or planned to trigger the events; Through FTP, Email and HTTP uploading images and issued a notice
Access subscribers	10 MAX
Network transmission control	Embedded network bandwidth adaptive flow control technology
Web Server	Microsoft Internet Explorer Version 5.5 or higher
Network Protocol	IPv4/v6、RTP/RTCP、TCP/UDP、HTTP、DHCP、DNS、FTP、DDNS、PPPOE、SMTP
Network Ethernet	RJ-45,10/100Base-T

Alarm Input/Output	1 Alarm Input，1 Alarm Output
PTZ Control	RS485, Polco-D/Polco-P
SD Card	Support MicroSD/HC, MiniSD/HC
Safely	Watchdog, Password protection
Temperature (℃)	-10-60℃, RH10-90% (RUN) -20-70℃, RH0-95% (STORE)
Power Consumption	5W
Supplied Voltage	9～12VDC ±5%，1000mA
POE	802.3af POE(Power over Ethernet)
Dimensions(mm)	
CMS Client and SDK	Open API for application integration including SDK